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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,363

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Shinya Watanabe

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07/28/2005

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EXAMINER

LEURIG, SHARLENE L

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/763,363

Applicant(s)

WATANABE ET AL.

Examiner

Sharlene Leurig

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,5,9,14,18,22,28,34,40,46 and 52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,9,14,18,22,28,34,40,46 and 52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. The amendment filed on June 20, 2005 has been entered and acknowledged by the examiner.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5, 14 and 46 stand rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al. (5,874,801) (of record).

Regarding claim 1, Kobayashi discloses a display device having a display window (Figure 1, substrate) with a principal surface having a magnetic loss layer formed on at least a part of it, since the antireflective layer of the coating on the substrate may include material that provides a magnetic radiation shielding function (column 1, lines 49-67). The magnetic loss layer is a granular magnetic thin layer with a magnetic composition comprising M, X and Y, wherein M is a metallic magnetic material such as Fe (column 4, line 39), Y is O in the form of an oxide (column 4, line 32) and X is a material other than M and Y chosen from any of the materials disclosed by Kobayashi as being present in the layer, including those in Table 1.

Regarding claim 5, Kobayashi discloses a light emitting element having a light emitting window (Figure 1, substrate) with a principal surface having a magnetic loss layer formed on at least a part of it, since the antireflective layer of the coating on the substrate may include material that provides a magnetic radiation shielding function (column 1, lines 49-67). Kobayashi further discloses a magnetic loss layer having the claimed composition, as discussed above in regard to claim 1.

Regarding claim 14, Kobayashi discloses a plasma display panel (column 8, lines 16-21) having a front glass substrate with an outer surface having a magnetic loss layer in a sheet formation formed on its outer surface, since the antireflective layer of the coating on the substrate may include material that provides a magnetic radiation shielding function (column 1, lines 49-67). Kobayashi further discloses a magnetic loss layer having the claimed composition, as discussed above in regard to claim 1.

Regarding claim 46, Kobayashi discloses a plasma display panel (column 8, lines 16-21) having a front glass substrate with an outer surface having a specked magnetic loss layer formed on its outer surface, since the antireflective layer of the coating on the substrate may include material that provides a magnetic radiation shielding function (column 1, lines 49-67). The magnetic loss layer may be interpreted as being specked because it is composed of individual particles or specks. Kobayashi further discloses a magnetic loss layer having the claimed composition, as discussed above in regard to claim 1.

4. Claims 1, 5, 9, 28 and 52 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ueoka et al. (6,034,474) (of record).

Regarding claim 1, Ueoka discloses a display device having a display window (Figure 2, element 1) with a principal surface having a magnetic loss layer (11) formed on at least a part of it.

Regarding claim 5, Ueoka discloses a light emitting element having a light emitting window (Figure 2, element 1) with a principal surface having a magnetic loss layer (11) formed on at least a part of it.

Regarding claim 9, Ueoka discloses a light emitting element having a light emitting window (Figure 2, element 1) with a principal surface having a meshed (Figure 3) magnetic loss layer (11) formed on at least a part of it.

Regarding claim 28, Ueoka discloses a plasma display panel having a front glass (column 6, line 25) substrate (Figure 2, element 1) with an inner surface having a latticed (Figure 3) magnetic loss layer (11) formed on the inner surface.

Regarding claim 52, Ueoka discloses a plasma display panel having a front glass (column 6, line 25) substrate (Figure 2, element 1) with an inner surface having a specked magnetic loss layer (11) formed on the inner surface. The magnetic loss layer may be interpreted as being specked because it is composed of individual particles or specks.

Regarding claims 2, 6, 10 and 29, the magnetic loss layer is a granular magnetic thin layer with a magnetic composition comprising M, X and Y, wherein M is a metallic magnetic material such as Fe or Co (column 6, line 49), Y is O in the form of an oxide (column 6, line 49) and X is a material other than M and Y, such as chromium (column 6, line 49).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 18 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (5,874,801) (of record) in view of Ballato et al. (5,698,940) (of record).

Kobayashi discloses a display device such as a plasma display panel (column 8, lines 16-21) having a front glass substrate with an outer surface having a magnetic loss layer in a sheet formation formed on its outer surface, since the antireflective layer of the coating on the substrate may include material that provides a magnetic radiation shielding function (column 1, lines 49-67). The magnetic loss layer is a granular magnetic thin layer with a magnetic composition comprising M, X and Y, wherein M is a metallic magnetic material such as Fe (column 4, line 39), Y is O in the form of an oxide (column 4, line 32) and X is a material other than M and Y chosen from any of the materials disclosed by Kobayashi as being present in the layer, including those in Table 1.

Kobayashi fails to exemplify a magnetic loss layer formed on its inner surface.

Ballato teaches a cathode ray tube having an antireflective layer (Figure 3b, element 20) formed on the inner surface of its panel.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the PDP of Kobayashi to have the antireflective layers and

magnetic loss layer, which are part of the same stack, on the inside of the panel, as Ballato has taught antireflective layers to reduce reflection whether on the inside or outside of the panel.

7. Claims 22 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (6,034,744) (of record) in view of Kobayashi et al. (5,874,801) (of record), and further in view of JP 9-188545 (of record).

Lee discloses a display device comprising a cathode ray tube having a display panel with an outer surface, the display device comprising a striped (Figure 4A) or latticed (Figure 5A) magnetic loss layer formed on the outer surface (column 3, lines 26-39).

Lee fails to exemplify the magnetic loss layer being used on a plasma display panel.

Kobayashi teaches a magnetic loss layer that may be used for CRTs and plasma display devices (column 8, lines 16-21).

Lee further fails to disclose a magnetic loss layer of the claimed composition.

JP 9-188545 teaches a magnetic loss layer for a cathode ray tube comprising metal oxides (Y) containing at least one of nickel, iron, cobalt, (M) and several other elements (X) such as ruthenium, zinc, chrome, manganese, copper, bismuth, antimony, and lanthanoids (Abstract). JP 9-188545 teaches this combination as a means of overcoming problems of the prior art such as reduction of the resolution of the display image (paragraph 0010).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the latticed or striped magnetic loss layer of Lee to be used on a plasma display panel, as Kobayashi has taught identical magnetic loss layers to be useful on both types of devices to reduce radiation leakage from the device, and to further modify to modify Lee's magnetic loss layer with the composition taught by JP 9-188545 in order to provide a magnetic loss layer while further improving the image resolution.

8. Claim 40 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Ueoka et al. (6,034,474) (of record) in view of Lee (6,034,744) (of record) and further in view of Kobayashi et al. (5,874,801) (of record).

Ueoka discloses a plasma display panel having a front glass (column 6, line 25) substrate (Figure 2, element 1) with an inner surface having a latticed (Figure 3) magnetic loss layer (11) formed on the inner surface. Ueoka discloses the magnetic loss layer to be a granular magnetic thin layer with a magnetic composition comprising M, X and Y, wherein M is a metallic magnetic material such as Fe or Co (column 6, line 49), Y is O in the form of an oxide (column 6, line 49) and X is a material other than M and Y, such as chromium (column 6, line 49).

Ueoka fails to exemplify a striped magnetic loss layer.

Lee teaches a latticed (Figure 5A) or striped (Figure 4A) magnetic loss layer formed on the outer surface (column 3, lines 26-39) of a panel of a display device.

Lee fails to exemplify a magnetic loss layer for a PDP.



Kobayashi teaches a magnetic loss layer that may be used for CRTs and plasma display devices (column 8, lines 16-21).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the latticed magnetic loss layer of Ueoka to be striped, as Lee has taught either pattern as reducing radiation leakage for a display device, and as Kobayashi has taught identical magnetic loss layers to be useful on both types of devices to reduce radiation leakage from the device.

### ***Response to Arguments***

9. Applicant's arguments filed on June 20, 2005 have been fully considered but they are not persuasive.

The applicant has argued that the Kobayashi reference fails to anticipate the claimed invention, as there is allegedly no disclosure of shielding or magnetic loss properties after the summary of the invention, or disclosure of saturation magnetization. The exact magnetic loss properties and saturation magnetization of the applicant's invention are not quantified in the claims, and therefore cannot be relied upon to overcome the rejections. Furthermore, Kobayashi discloses a conductive oxide layer having iron oxide and an oxide of another metal from Table I. Examiner **directs the applicant to the reference cited of interest**, "Magnetite Powder ( $\text{Fe}_3\text{O}_4$ )", which recites the magnetic properties of magnetite, one iron oxide compound. Though the iron oxide of the Kobayashi reference is not necessarily magnetite, the examiner believes any iron oxide molecule has some magnetic properties. The applicant has further argued that there is no disclosure of the claimed structure of M dispersed in an X-Y

matrix. The applicant's specification discloses M dispersed in an X-Y matrix, and further discloses the magnetic loss layer to comprise molecules such as Fe<sub>44</sub>Al<sub>22</sub>O<sub>34</sub> (page 12). If applicant considers iron bonded in an oxide compound with another metal to constitute a magnetic material M dispersed in an X-Y matrix, the examiner believes it reasonable to consider a layer having a relatively small amount of iron oxide (column 4, lines 41-43) in a layer with another metallic oxide to also constitute a magnetic material M dispersed in an X-Y matrix, and does not believe the claim language to rule out such an interpretation.

The applicant has argued that the Ueoka reference fails to anticipate the claimed invention, as the Ueoka reference allegedly discloses separate compositions and not an X-Y matrix with M dispersed therein. The applicant admits that the black pigment, which Ueoka describes as forming an electromagnetic field shielding layer (column 6, line 50), is composed of "a mixture of iron, cobalt and chromium oxides" (page 8). The applicant's specification discloses M dispersed in an X-Y matrix, and further discloses the magnetic loss layer to comprise molecules such as Fe<sub>44</sub>Al<sub>22</sub>O<sub>34</sub> (page 12). If applicant considers iron bonded in an oxide compound with another metal to constitute a magnetic material M dispersed in an X-Y matrix, the examiner believes it reasonable to consider a layer having iron oxide mixed with chromium and/or cobalt oxide to also constitute a magnetic material M dispersed in an X-Y matrix, and does not believe the claim language to rule out such an interpretation.

The applicant has argued that the combination of the Lee, Kobayashi and Yasuhiro (JP 09-188545) references fails to teach or suggest the claimed invention, as the Yasuhiro reference allegedly discloses a paint having coprecipitated particles of

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different metals, and "oxides of any metal present" and not an X-Y matrix with M dispersed therein (page 9). The applicant's specification discloses M dispersed in an X-Y matrix, and further discloses the magnetic loss layer to comprise molecules such as  $\text{Fe}_{44}\text{Al}_{22}\text{O}_{34}$  (page 12). If applicant considers iron bonded in an oxide compound with another metal to constitute a magnetic material M dispersed in an X-Y matrix, the examiner believes it reasonable to consider a layer having oxides of at least one of nickel, iron, cobalt, (M), and several other elements (X) such as ruthenium, zinc, chrome, manganese, copper, bismuth, antimony, and lanthanoids to also constitute a magnetic material M dispersed in an X-Y matrix, and does not believe the claim language to rule out such an interpretation.

For these reasons the rejections are maintained and made final.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

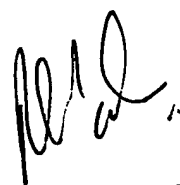
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (571) 272-2455. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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